

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015575**Date Inspected:** 07-Jun-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr. Li Jia**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder( OBG)**Summary of Items Observed:**

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

**TRIAL ASSEMBLY.**

This QA Inspector witnessed final Bolt tension verification for the Clips on "T"Rib at Lift: 9East from Panel Point (PP) #72~76. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed as per the ZPMC submitted Notification No. 00371 Dated: June 07, 2010.

Details of bolt size, RC Set # and final torque value are as follows:

Bolt sizes used were M16X45, RC Set# DHGM160001 and final torque value was 210 N-m.

Bolt sizes used were M16X50, RC Set# DHGM160004 and final torque value was 180 N-m.

Bolt sizes used were M16X65, RC Set# DHGM160006 and final torque value was 180 N-m.

This QA observed that six bolts have not been installed due to bolt hole misalignment. ZPMC Quality Control (QC) identified as Mr. Zhang Hai Jun informed this QA that ZPMC will correct the misaligned holes and re-notify Caltrans (CT) for inspection at a later date. This issue has been reported to CT lead inspector and recorded on CT NWIT tracking sheet 00371. See attached photos for details.

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The locations are as follows:

1. PP#73-Side plate (Bike Path side) "T" Rib#3 and 13.
2. PP#73-Side plate (Crossbeam side) "T" Rib#3 and 5.
3. PP#75-Side plate (Crossbeam side) "T" Rib#13.
4. PP#76-Side plate (Bike Path side) "T" Rib#1.

### Segment # 8AE

This QA performed a joint survey dimensional inspection of corner assembly cope holes on segment 8AE. The inspection was performed along with Caltrans (CT) QA Mr. Manoj Prabune. Measurements of the cope holes were taken from PP61 to PP64.5 at the following locations: E1~E2, S1~S5 and T1~T3 on both the crossbeam and bike path sides. Details of these locations can be found on CT / QA document titled "OBG DCP Hand Measurement Survey: Corner Assembly Cope Holes". This QA recorded the measurements and submitted the information to CT / QA lead inspector for review.

### Segment # 8BE

This QA performed a joint survey dimensional inspection of corner assembly cope holes on segment 8BE. The inspection was performed along with Caltrans (CT) QA Mr. Manoj Prabune. Measurements of the cope holes were taken from PP 65 to 67 at the following locations: E1~E2, S1~S5 and T1~T3 on both the crossbeam and bike path sides. Details of these locations can be found on CT / QA document titled "OBG DCP Hand Measurement Survey: Corner Assembly Cope Holes". This QA recorded the measurements and submitted the information to CT / QA lead inspector for review.

This QA Inspector Randomly observed the following work in progress:

Segment: 9AW-9BW.

This QA observed ZPMC personnel grinding the deck panel transverse splice weld flush to the surface of the deck panel base metal.

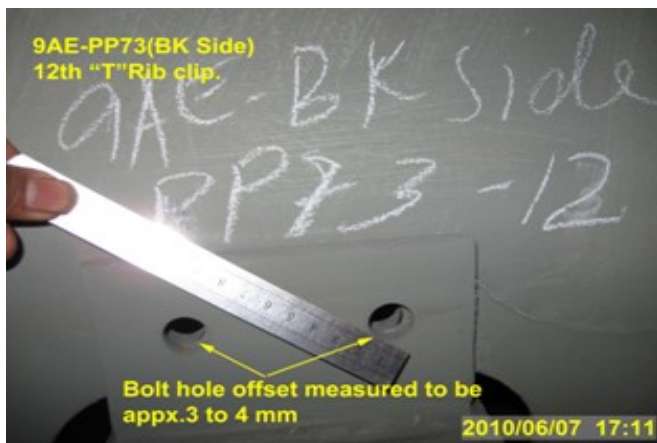
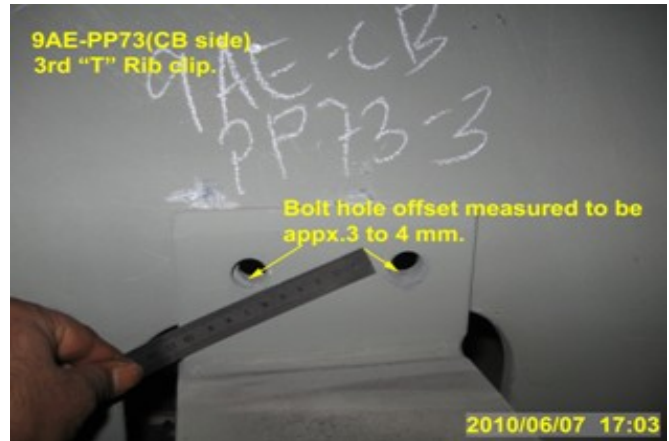
Segment: 8AW-8BW.

American Bridge/Fluor QA Inspector was performing Ultrasonic Testing for the Transverse splice weld joint at Edge Panel (Crossbeam side).

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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## Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Prabhu,Surendra

Quality Assurance Inspector

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**Reviewed By:** Hall,Steven

QA Reviewer